

**REMARKS**

Claims 1-6 are all the claims pending in the application.

**I. Claim Rejections under 35 U.S.C. § 103(a)**

A. The Examiner has rejected claims 1, 2, 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Hobbs (U.S. 4,857,818) and Lange et al. (U.S. 5,786,685).

Claims 1 and 4, as amended, recite that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor, which is raised by the regenerative energy of the motor when the motor is being stopped, is set lower than a breakdown voltage of the capacitor and the inverter by the overvoltage protecting circuit.

Thus, according to the claimed invention, there is a direct correspondence between the charging voltage of the capacitor and the flow of regenerative current through the overvoltage protecting circuit. Namely, when the charging voltage of the capacitor reaches a preset level, the regenerative current flows through the overvoltage protecting circuit such that the charging voltage is set lower than a breakdown voltage of the capacitor.

Regarding the cited prior art references, Applicants note that the Examiner has taken the position in the Office Action that it would have been obvious to replace the regenerative transistor 37, as shown in Fig. 9 of the present application, with a varistor 50, as shown in Hobbs (see Office Action at the bottom of page 3). Regarding Hobbs, Applicants note that this reference discloses that the varistor 50 is used to protect the circuit from high voltage transients (see col. 4, lines 60-

62).

While Applicants do not agree that it would have been obvious to replace the transistor 37, as shown in Fig. 9, with the varistor 50 of Hobbs, assuming, for the sake of argument alone, that one of ordinary skill in the art would have been motivated to make this replacement, Applicants respectfully submit that such a combination still would not suggest the above-noted correspondence between the charging voltage of the capacitor and the flowing of regenerative current through the overvoltage protecting circuit.

In particular, Applicants submit that while utilizing the varistor 50 of Hobbs in the circuit of Fig. 9 of the present application would arguably provide a way to protect the circuit in Fig. 9 from high voltage transients, such a combination would not suggest to one of ordinary skill in the art that regenerative current should flow through the varistor 50 upon the capacitor of Fig. 9 reaching a preset voltage such that the charging voltage of the capacitor is set lower than its breakdown voltage.

Accordingly, Applicants respectfully submit that the combination of the Admitted Prior Art and Hobbs does not suggest that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor, which is raised by the regenerative energy of the motor when the motor is being stopped, is set lower than a breakdown voltage of the capacitor and the inverter by the overvoltage protecting circuit, as recited in amended claims 1 and 4.

Further, regarding Lange, Applicants note that this reference discloses that a capacitor can be derated to 0.7 times its rated voltage (see col. 9, lines 54-55). Applicants respectfully submit,

however, that the mere disclosure of derating a capacitor's voltage would not suggest to one of ordinary skill in the art that a circuit should be provided that includes the direct correspondence between the charging voltage of a capacitor and the regenerative current flow through an overvoltage protecting circuit, as discussed above.

That is, while Lange may suggest that a capacitor can be rated lower than its actual rating, Applicants respectfully submit that such disclosure, in combination with the capacitor of the Admitted Prior Art and the varistor 50 of Hobbs, does not suggest that the charging voltage of the capacitor of the Admitted Prior Art should determine the flow of regenerative current through the varistor 50 such that the charging voltage of the capacitor is set lower than its breakdown voltage. Instead, such disclosure merely suggests that the capacitor of the Admitted Prior art could be rated below its actual rating.

In other words, while Lange indicates that a capacitor can be rated lower than its actual rating, Applicants respectfully submit that the mere disclosure of derating a capacitor would not suggest that regenerative current should flow through the varistor 50 upon the capacitor of the Admitted Prior Art reaching a preset voltage such that the charging voltage of the capacitor is set lower than its breakdown voltage.

In view of the foregoing, Applicants respectfully submit that the combination of the Admitted Prior Art, Hobbs, and Lange does not render obvious that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor, which is raised by the regenerative energy of the motor when the motor is being stopped, is set lower than a breakdown

voltage of the capacitor and the inverter by the overvoltage protecting circuit, as recited in amended claims 1 and 4.

Accordingly, Applicants respectfully submit that claims 1 and 4 are patentable over the cited prior art, an indication of which is kindly requested. Claim 2 depends from claim 1, and claim 5 depends from claim 4. Accordingly, Applicants respectfully submit that these claims are patentable at least by virtue of their dependency.

B. The Examiner has rejected claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Hobbs, Lange et al., and Ruckman (U.S. 4,571,656).

Claim 3 depends from claim 1, and claim 6 depends from claim 4. Applicants respectfully submit that Ruckman fails to cure the deficiencies of the Admitted Prior Art, Hobbs, and Lange, as discussed above, with respect to claims 1 and 4. Accordingly, Applicants respectfully submit that claims 3 and 6 are patentable at least by virtue of their dependency.

## **II. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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